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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,134	08/28/2003	Mengtao Pete He	29930.9800	6333

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EXAMINER	
CONLEY, SEAN EVERETT	
ART UNIT	**PAPER NUMBER**
1744	

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/650,134	HE ET AL.	
	Examiner	Art Unit	
	Sean E. Conley	1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *2/13/2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 9, 2006 has been entered.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vieira (U.S. Patent No. 6,487,367 B2) in view of O'Neil (U.S. Patent No. 4,739,928).

Regarding claims 1 and 5, Vieira discloses an air freshener dispenser comprising a first vaporizable material (aromatic or insecticide inside chamber (17)), a second vaporizable material (a different aromatic or insecticide inside chamber (18)) and a common delivery system comprising a transfer mechanism and an evaporation region (heating block (1)). The transfer mechanism comprises a first wick structure (19) that is

in liquid communication with the first vaporizable material (aromatic liquid in chamber (17)) and a second wick structure (20) that is in liquid communication with the second vaporizable material (aromatic liquid in chamber (18)) (see figure 4; col. 6, line 57 to col. 7, line 62). Vieira also discloses a transfer mechanism (first and second wick structures) that is physically attached to the delivery system (heating block (1) with heating element(s) - see col. 7, lines 25-46) and a delivery system that further comprises a controller (heating block (1) with a heating element) configured to modulate the amounts of the first and second volatizable materials available to said first wick structure and said second wick structure (see col. 3, lines 43-67). The heating block contains heating elements which can be operated at different heating capacities to provide different evaporation rates of the volatizable material in each of the wicks. Since a wick can only hold a predetermined amount of volatile liquid, the adjustability of the evaporation rates modulates the amount of liquid material that is supplied to the wick. For example, a higher heating level provides a higher evaporation rate and thus the amount of volatizable material available to the wick is increased whereas at a lower heating level the resulting lower evaporation rate provides a decrease in the amount of volatizable material available to the wick structure. Vieira fails to teach an evaporation region comprising a pad in liquid communication with the first and second wick structures (17, 18).

O'Neil discloses an air freshener dispenser that comprises a reservoir (container (12)) containing a volatile liquid fragrance composition that is carried to an emanator pad (22) by a wick means (16) for subsequent diffusion from the pad into the

atmosphere (see col. 1, lines 7-12; col. 2, lines 45-50; figure 1). In use, the emanator pad (22) is contacted with the wick (16) so that the volatile liquid fragrance can be wicked from the container (12) to the emanator pad (22) and then diffused into the atmosphere by evaporation (see col. 5, lines 25-30). This reference has been relied upon to teach that it is well known to attach a pad in liquid communication with a wick in order to enhance diffusion and evaporation of a volatile liquid fragrance.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Vieira and include an emanator pad in liquid communication with the wick structures as taught by O'Neil in order to enhance diffusion and evaporation of the fragrance from the wicks into the atmosphere via the emanator pad.

Regarding claim 2, Vieira discloses that the first vaporizable material includes a first fragrance and the second vaporizable material includes a second fragrance (see col. 7, lines 50-54 – in an aromatherapy, two different aromatics can be placed in chambers 17, 18 so that they can be evaporated to produce a mixture of aromatics).

Regarding claim 3, Vieira discloses that the first and second volatizable materials (fragrances) are physically attached to the delivery system (attached by first and second wicks (19, 20) inside of chambers (17, 18) containing the volatizable aromatics) (see col. 7, lines 25-33 and 47-54).

3. Claims 1-3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vieira (U.S. Patent No. 6,487,367 B2) in view of O'Neil (U.S. Patent No. 4,739,928) and Weyl (U.S. Patent No. 2,022,394).

Regarding claims 1 and 5, Vieira discloses an air freshener dispenser comprising a first vaporizable material (aromatic or insecticide inside chamber (17)), a second vaporizable material (a different aromatic or insecticide inside chamber (18)) and a common delivery system comprising a transfer mechanism and an evaporation region (heating block (1)). The transfer mechanism comprises a first wick structure (19) that is in liquid communication with the first vaporizable material (aromatic liquid in chamber (17)) and a second wick structure (20) that is in liquid communication with the second vaporizable material (aromatic liquid in chamber (18)) (see figure 4; col. 6, line 57 to col. 7, line 62). Vieira also discloses a transfer mechanism (first and second wick structures) that is physically attached to the delivery system (heating block (1) with heating element(s) - see col. 7, lines 25-46) and a delivery system that further comprises a controller (heating block (1) with a heating element) configured to modulate the amounts of the first and second volatizable materials available to said first wick structure and said second wick structure (see col. 3, lines 43-67). The heating block contains heating elements which can be operated at different heating capacities to provide different evaporation rates of the volatizable material in each of the wicks. Since a wick can only hold a predetermined amount of volatile liquid, the adjustability of the evaporation rates modulates the amount of liquid material that is supplied to the wick. For example, a higher heating level provides a higher evaporation rate and thus

the amount of volatizable material available to the wick is increased whereas at a lower heating level the resulting lower evaporation rate provides a decrease in the amount of volatizable material available to the wick structure. Vieira fails to teach an evaporation region comprising a pad in liquid communication with the first and second wick structures (17, 18).

O'Neil discloses an air freshener dispenser that comprises a reservoir (container (12)) containing a volatile liquid fragrance composition that is carried to an emanator pad (22) by a wick means (16) for subsequent diffusion from the pad into the atmosphere (see col. 1, lines 7-12; col. 2, lines 45-50; figure 1). In use, the emanator pad (22) is contacted with the wick (16) so that the volatile liquid fragrance can be wicked from the container (12) to the emanator pad (22) and then diffused into the atmosphere by evaporation (see col. 5, lines 25-30). This reference has been relied upon to teach that it is well known to attach a pad in liquid communication with a wick in order to enhance diffusion and evaporation of a volatile liquid fragrance.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Vieira and include an emanator pad in liquid communication with the wick structures as taught by O'Neil in order to enhance diffusion and evaporation of the fragrance from the wicks into the atmosphere via the emanator pad.

In the event that Vieira does not teach with sufficient specificity a controller to modulate the amounts of said first and second volatizable materials available to said

first wick structure and said second wick structure, U.S. Patent No. 2,022,394 to Weyl has been relied upon below to teach this type of controller.

Weyl discloses a humidifier with an improved means for controlling the humidifier to thereby secure proper relative humidity in a room. The device comprises a furnace casing (2) which houses reservoirs (9) and first and second wicks (11) which are provided with liquid via a delivery system. The delivery system comprises pipes (13) and (14) with pipe (13) being coupled to the reservoirs (9) and pipe (14) being coupled to pipe (13). A valve (15) is coupled to pipe (14) and controls the supply of water through the delivery system to the reservoirs and the wicks. For the purpose of controlling the operation of humidification the valve (15) is adjusted to maintain a desired level of liquid in reservoirs (9) at a predetermined height and as a result the wicking action can be varied (see fig.1; col. 1, line 44 to col. 2, line 49). This reference has been relied upon to teach that it is well known in the art of liquid vaporizers to utilize a controller (valve (15)) to modulate the amounts of liquid available to the wick structures in order to control the vaporization.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Vieira and include a delivery system comprising a valve and pipes that are attached to the liquid reservoirs containing the wicks as taught by Weyl in order to modulate and control the amounts of volatizable material available to the wick structures which provides variation of the wick action and provides enhanced control of vaporization of the liquid.

Regarding claim 2, Vieira discloses that the first vaporizable material includes a first fragrance and the second vaporizable material includes a second fragrance (see col. 7, lines 50-54 – in an aromatherapy, two different aromatics can be placed in chambers 17, 18 so that they can be evaporated to produce a mixture of aromatics).

Regarding claim 3, Vieira discloses that the first and second volatizable materials (fragrances) are physically attached to the delivery system (attached by first and second wicks (19, 20) inside of chambers (17, 18) containing the volatizable aromatics) (see col. 7, lines 25-33 and 47-54).

Response to Arguments

4. Applicant's arguments, see pages 3-4, filed August 9, 2006, with regards to claims 1-5 have been fully considered but they are not persuasive.

The Applicant argues that Vieira fails to disclose that the supply of the volatile substances to the wicks can be controlled, either via the switching device or any other mechanism. Further, the Applicant states that the combination with O'Neil does not cure this deficiency. The Examiner respectfully disagrees for the following reasons:

Vieira discloses a delivery system that further comprises a controller (heating block (1) with a heating element) configured to modulate the amounts of the first and second volatizable materials available to said first wick structure and said second wick structure (see col. 3, lines 43-67). The heating block contains heating elements which can be operated at different heating capacities to provide different evaporation rates of the volatizable material in each of the wicks. Since a wick can only hold a

predetermined amount of volatile liquid, the adjustability of the evaporation rates modulates the amount of liquid material that is supplied to the wick. For example, a higher heating level provides a higher evaporation rate and thus the amount of volatizable material available to the wick is increased whereas at a lower heating level the resulting lower evaporation rate provides a decrease in the amount of volatizable material available to the wick structure. As a result, the heating elements function as a controller for controlling the amounts of volatile substances that are supplied to the wicks.

In the event that Vieira does not teach with sufficient specificity a controller to modulate the amounts of said first and second volatizable materials available to said first wick structure and said second wick structure, U.S. Patent No. 2,022,394 to Weyl has been relied upon below to teach this type of controller. See the rejection in section 3 above.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 1,397,906 discloses a vapor dispensing device comprising a volatizable material, a delivery system, a wicking means, and a controller configured to modulate the amounts of volatizable material available to the wick structure (see page 2, lines 10-85).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean E. Conley whose telephone number is 571-272-8414. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sec

October 4, 2006

PRIMARY EXAMINER
AU 1744